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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1771

8

DATE MAILED: 04/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,654

Applicant(s)

HANNINGTON, MICHAEL

Examiner

Victor S Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) 53-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,6 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-52, drawn to an adhesive article with improved air egress, classified in class 428, subclass 343.
 - II. Claims 53-74, drawn to an adhesive article with non-adhesive on the release liner, classified in class 428, subclass 40.1.
2. Inventions Group I and Group II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are in different subclasses because the non-adhesive material forms are placed at different layers.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Heidi Boehlefeld on 4/24/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-52. Affirmation of this election must be made by applicant in replying to this Office action. Claims 53-74 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. It is indicated that a route for air bubbles to egress is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More particularly, in claim 1, the non-adhesive material forms are embedded at the interface of the facestock and the adhesive layer. However, in the Specification, on page 13, paragraph 1, Applicant stated "This is particularly true for the smaller bubbles which form as the natural result of laying the adhesive construction onto a substrate. Even when applied properly, small bubbles are still formed. The air in these bubbles needs a route to egress." As such, the non-adhesive material forms and the "routes" should be placed at the interface between the substrate and the adhesive layer, rather than at the interface between the facestock and the adhesive layer. This feature is not incorporated into independent claim 1. Further, although it is not in the claims, the Examiner would like to question the feasibility of forming the routes as illustrated in Fig. 3c. It seems unlikely that a recessed route, lined with non-adhesive material, in Fig.3b, would collapse and adhere to the facestock, and pull the adhesive away from the

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substrate to form air egress routes at the interface of adhesive layer and the substrate.

This is particularly true when the adhesive is a not fully cured, generally deformable, pressure-sensitive adhesive. Clarification is requested.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 27, 36, 42, 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Rusincovitch et al. US Pat. 5676787.

Rusincovitch's invention relates to methods and intermediates for making wall coverings, such as wallpaper which utilize a pressure sensitive adhesive and a means to minimize initial adhesion of the wall covering to a wall. Maximum adhesion is subsequently attained after the wall covering has been repositioned as desired (column 1, lines 10-15). To make embodiment 113 of FIG. 6A, the pattern of spacers 118 is printed onto a first flat side of the release sheet 120 to cover a first portion of the first side of the release sheet 120 and protrude from the release sheet 120 first side, as well as define a second portion of the first side of the release sheet 120 which is uncovered by the spacers 118 (column 6, lines 32-38). As shown by FIG. 6B, the adhesive coating 116 is adhered to the back side 115 of the substrate 112 with the release sheet 120,

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releasably attached to the adhesive coating 116. The non-adhesive spacers 118 are made of dried ink (Column 6, lines 39-41). The spacers 118 of FIG. 6B are typically flush with the adhesive layer 116 (column 9, lines 51-55). Claims lack novelty.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 28-29, 32-33, 37-41, 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al.

The teachings of Rusincovitch are again relied upon as set forth above. Further, for claim 28, Rusincovitch teaches that typically, the spacers 18 of FIGS. 2B and 4B have a thickness of about 0.05 mils to 0.50 mils (1μ to 10μ). For claim 29, Rusincovitch teaches that anything that can be used as the ink on a printing machine can be used for fabricating the spacers so long as it is not sticky or tacky upon drying so that the spacers can slide over the surface of a wall. Thus, any plastic, including resinous material, which can be placed in solution, dispersion or emulsion and which is not sticky or tacky on drying can be used. The spacers can be made of organic polymeric material such as polyurethane, polyvinyl chloride, acrylic polymers, acetate,

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polyethylene, polypropylene or polystyrene and the like (column 10, lines 30-39). As such, in the absence of unexpected results, the Examiner takes Official notice that UV curable ink would have been an obvious choice to one of ordinary skill in the art, motivated by the desire to obtain the inherent non-adhesive property of UV cured ink.

For claim 32, Rusincovitch teaches that the non-adhesive spacers 18 are applied as a pattern of circles as shown by FIG. 1; further, the spacers 18 may be of any geometric shape, e.g., square, diamonds, triangles, or ovals (column 5, lines 5-8). For claim 33, Rusincovitch teaches that the cross section of each spacer will generally vary from about 0.01 to about 0.5 square inches (column 10, lines 6-8). While Rusincovitch's disclosures do not exactly coincide with the Applicant's claimed shapes and ranges of width and thickness, it would have been obvious to one having ordinary skill in the art to modify the spacer shapes and optimize the ranges of the width and thickness of the non-adhesive material. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claims 37-41 and 50-52, the Examiner takes official notice that using heat activated adhesive (claim 37) to obtain enhanced adhesion strength, using porous non-adhesive material, such as polymeric foams (claim 38-39), winding the adhesive sheet into a roll with a facestock having a release surface (claims 40-41), printing and embedding non-adhesive material into the release liner surface (claim 50), and making double sided adhesive sheets (claim 51-52) are common knowledge in the art of pressure sensitive adhesive tapes or sheets. As such, in the absence of unexpected

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results, it would have been obvious to one having ordinary skill in the art to apply these aforementioned well-known elements to the instant claimed invention, motivated by the desire to improve the adhesion strength and/or reduce the production cost.

11. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. either individually, or in view of Murai et al. US Pat. 5853862.

The teachings of Rusincovitch are again relied upon as set forth above.

Rusincovitch's teachings lack the method of forming the non-adhesive material forms by vacuum metalization or sputtering and the thickness of the non-adhesive material. The Examiner takes Official notice that it is well known that sputtering has been used to deposition non-adhesive metalized surface on a substrate. Alternatively, Murai's invention relates to a barrier composite film. Murai teaches that a non-adhesive anchor coat layer has high antiblocking properties. The inorganic anchor coat layer can be formed by utilizing the conventional technology which includes physical methods (e.g. vacuum vapor deposition, reactive vapor deposition, sputtering, reactive sputtering, ion plating, reactive ion plating, etc.) and chemical methods (e.g. CVD, plasma CVD and laser CVD processes) (column 14, lines 10-23). As such, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to use the sputtering method to deposit non-adhesive materials on Rusincovitch's adhesive surface instead of the ink printing method, motivated by the desire to avoid the curing and/or drying process required by the ink printing method.

12. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. in view of GB 1 511 060.

The teachings of Rusincovitch are again relied upon as set forth above.

Rusincovitch's teachings lack the feature of having at least 50% of the lines of non-adhesive material intersect the end edges of the adhesive layer. GB '060 is directed to improve the mechanism for degassing from between the bonded surfaces (page 1, lines 82-84). GB '060 teaches an air impermeable adhesive sheet, provided on its back surface with a heat and pressure-sensitive adhesive, wherein the surface of the adhesive layer is provided with one or more elongate ridges or recesses and wherein at least on end of such ridge or recess intersects the end edge of the sheet. Further, GB '060 teaches that a grid pattern, fig. 5-3, of parallel straight lines can be effective to achieve the air egressing effect (page 2, line 116-128). As such, in the absence of unexpected results, it would be obvious to one having ordinary skill in the art to modify Rusincovitch's non-adhesive material pattern with a grid pattern with at least one end of the lines of non-adhesive material intersects the end edge of the sheet, as taught by GB '060, motivated by the desire to successfully obtain the effective air egress property.

13. Claims 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. in view of JP 59-53787.

The teachings of Rusincovitch are again relied upon as set forth above.

Rusincovitch's teachings are silent about the use of a release liner which has a textured surface. JP '787 is directed to a pressure sensitive adhesive waterproof sheet. JP '787 teaches that a textured release liner is applied to an adhesive surface, and therefore forming grooves in grid pattern (Fig. 3) onto the pressure sensitive adhesive surface (page 2, paragraph 5 and page 4, paragraph 1). When the release is peeled off, clearly

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defined grooves on the adhesive surface are then available to allow the air trapped between the adhesive sheet and the substrate to be exhausted (or egressed) smoothly (page 4, paragraph 1). As such, in the absence of unexpected result, it would be obvious to one of ordinary skill in the art to modify Rusincovitch's flat release liner with a textured release liner, as taught by JP '787, motivated by the desire to obtain a smooth adhesive surface free of trapped air bubble.

14. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. in view of Danielson et al. (US 3331729).

The teachings of Rusincovitch are again relied upon as set forth above. Rusincovitch is silent about making a randomly distributed non-adhesive particulate material on/or embedding into the release liner. Danielson's invention is related to sheet materials coated with adhesives (column 1, lines 10-11). In Fig. 2, Danielson teaches that non-adhesive particles are randomly embedded into a release sheet, which can be later transferred to adhesive layer to provide repositionability (column 2, line 59 to column 3, line 2). As such, in the absence of unexpected results, it would have been obvious to one skill in the art to randomly distribute non-adhesive particulate material on/or embedding into the release liner, as taught by Danielson, motivated by the desire to obtain the repositionability of the adhesive sheet, with reasonable expectation of success based on the prior art.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for making adhesive articles with air egress property:

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US 5853862 to Murai et al.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 703-605-4296. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

VSC
VSC
April 25, 2002

DANIEL ZIRKER
PRIMARY EXAMINER
GROUP 1800-
1700

Daniel Zinker